

Work Order ID 130251

Monday, March 02, 2015 8:32:03 AM

130251

Page 1

Item ID: D5957

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Saddle

Start Date: 3/2/2015 Start Qty: 2.00 *2*

Cust Item ID:

Required Date: 3/2/2015 Req'd Qty: 2.00 *2*

Customer:

Reference:

Approvals: Process Plan: MCS Date: 1503-02 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D5957	Rev B								

100

0.00

100

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1-Machine as per folio D5957, Ensure Batch Number is entered
2-Machine Keyway
3-Debur & Tumble

P 15-03-16

2

110

QC1- Inspection performed by CMM

0.00

110

QC

Memo

0.00

Quality Control

ML 15/03/19

2

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.00

Quality Control

2

0

DAS
44
9-89

15/03/20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 130251

130251

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Monday, March 02, 2015 8:32:03 AM

Item ID: D5957 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Saddle
 Start Date: 3/2/2015 Start Qty: 2.00 *2* Cust Item ID:
 Required Date: 3/2/2015 Req'd Qty: 2.00 *2* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Chemical Conversion Coat per QSI005 4.1	0.00							
130	HandFinish	0.00							
Hand Finishing	Memo								
140	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
140	Powdercoat	0.00							
Powder Coating	Memo								
	START TIME: 3:30 OVEN TEMPERATURE:								
	FINISH TIME: 4:00								
150	QC3- Inspect Part Finish	0.00							
150	QC	0.00							
Quality Control	Memo								

2 15-3-23

2 15-3-23

(2)

MAR 24 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 130251***130251***

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Monday, March 02, 2015 8:32:03 AM

Item ID: D5957 Accept ***N1900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Saddle
Start Date: 3/2/2015 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 3/2/2015 Req'd Qty: 2.00 ***2*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Locations <i>ST 399</i>	0.00							
160									
Packaging	Memo	0.00				<i>24</i>		<i>DAS 26 289</i>	<i>MAR 24 2015</i>
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							
Quality Control									

15/3/26
MF
15-3-24

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Training									
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FAULT CATEGORY

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Picklist Print

Monday, March 02, 2015 8:32:06 AM

Page 1

Work Order ID: 130251

130251

Parent Item: D5957

D5957

Parent Item Name: Saddle

Start Date: 3/2/2015

Required Date: 3/2/2015

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:E Re-Format 05-11-29 JLM
IPP Rev:F ecn826 06.12.06 ec

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-007		Manufactured	No			110	Each	36.0000	1	2			

D6101-007

Saddle Billet

Location	Loc Qty	Loc Code
MAT041	21	
121646	1	
127646	20	
MAT044	15	
116083	5	
119005	2	
120494	7	
76839	1	

P15-03-74

2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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FAULT CATEGORY

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DART AEROSPACE LTD		Work Order:	130251
Description: Inner Aft Saddle		Part Number:	D5957
Inspection Dwg: D5957	Rev: B	Page 1 of 1	

Inspect dimensions highlighted on inspection sheet drawing and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				1	2	3	4		
A	0.438	0.443		.438	.436				
B	1.745	1.755		1.751	1.751				
C	5.245	5.255		5.252	5.252				
D	6.995	7.005		7.003	7.002				
E	5.240	5.260		5.240	5.250				
F	4.745	4.755		4.750	4.750				
G	0.315	0.322		.319	.316				
H	1.522	1.532		1.527	1.527				
I	3.048	3.058		3.053	3.053				
J	4.575	4.585		4.580	4.580				
K	0.315	0.322		.319	.316				
L	0.495	0.505		.500	.500				
M	0.490	0.510		.495	.502				
N	1.865	1.885		1.875	1.875				
O	7.990	8.010		7.998	7.999				
P	2.240	2.260		2.250	2.25				
Q	0.308	0.313		.310	.309				
R	0.760	0.765		.760	.760				
S	0.490	0.510		.495	.506				
T	1.625	1.645		1.630	1.635				
U	2.000	2.020		2.000	2.000				
V	0.023	0.043		.035	.035				
W									
X									
Y									
Z									
AA									
AB									
AC									
AD									
AE									
AF									
Accept/Reject									

Measured by:	15-03-16
Date:	

Audited by:	FK
Date:	15/07/20

Rev	Date	Change	Revised by	Approved
A	99.04.19	New Issue	RF	
B	02.12.13	Reformat; Added Dim. T-U & DT8682, DT8686 & DT8696 A/B	KJ/RF	
C	06.11.20	Added dimension V	KJ/JLM	
D	06.12.06	Dimensions L,N,P revised	KJ/EC	
E	07.06.15	Dimension G revised	KJ/JLM	
F	08.04.21	Dimension E revised	KJ/DD	
G	08.09.05	Dimension K revised	KJ/DD	
H	09.07.29	Dimension Q revised	KJ	



Part Number: D5957	Rev: B	- Page 1 -
Description: INNER AFT SADDLE	Inspection Dwg: D5957	Work Order: 130251

Name	Nominal	Upper Tol Lower Tol	No. Piece_1 Actual	No. Piece_2 Actual			
A Diameter	0.4380	0.0050 0.0000	0.4382	0.4382			
B Distance XY	1.7500	0.0050 -0.0050	1.7510	1.7502			
C Distance XY	5.2500	0.0050 -0.0050	5.2521	5.2495			
D Distance XY	7.0000	0.0050 -0.0050	7.0034	6.9988			
E Distance ZX	5.2500	0.0100 -0.0100	5.2482	5.2476			
F Distance XY	4.7500	0.0050 -0.0050	4.7470	4.7478			
G Diameter	0.3160	0.0060 -0.0010	0.3201	0.3160			
H Distance XY	1.5270	0.0050 -0.0050	1.5265	1.5267			
I Distance XY	3.0530	0.0050 -0.0050	3.0540	3.0532			
J Distance YZ	4.5800	0.0050 -0.0050	4.5805	4.5804			
K Diameter	0.3160	0.0060 -0.0010	0.3195	0.3156			
L Distance ZX	0.5000	0.0050 -0.0050	0.5000	0.5005			
M Distance YZ	0.5000	0.0100 -0.0100	0.4988	0.5037			
O Distance XY	8.0000	0.0100 -0.0100	7.9980	7.9977			
S Distance XY	0.5000	0.0100 -0.0100	0.4923	0.5066			

Measured by:
Mathieu Lamarche

Date:
2015-3-19

Audited by:

DAS
44
9-89

Date:

15/03/20